

EXHIBIT A

PARTIES' JOINT CLAIM CONSTRUCTION CHART

FOR FAMILY 5 PATENTS

Disputed Claim Term	Patent, Asserted Claims	Plaintiff's Proposed Construction	Defendants' Proposed Construction
preamble	'379 patent, claim 11, 16	Preamble is limiting.	Preamble is not limiting.
"transceiver"	'958 patent, claims 14, 19 '337 patent, claims 10, 16	"communications device capable of transmitting and receiving data wherein the transmitter portion and receiver portion share at least some common circuitry" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at Fig. 1, Fig. 5, 4:34-4:41, 5:12-15, 5:25-31. ¹	"communications device capable of transmitting and receiving data" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at 4:34-54, 5:12-30, Figure 1.
"PERp"	'379 patent, claims 11, 16 '958 patent, claims 14, 19 '337 patent, claims 10, 16	"repetition period of the CRC computations" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at 1:19-51, 1:65 – 2:67, 4:21-24, 5:40-44.	'379 claims 11, 16 (in the alternative, if preamble found limiting) "period of time over which the CRC is computed" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at 1:35-50, 4:23-25. <i>See also</i> '379 patent claim 11, '958 patent claim 14, '778 patent claim 1, '337 patent claim 10.
"CRC bit[s] computation module"	'379 patent, claims 11, 16 '958 patent, claims 14, 19	A CRC bits computation module is a class of hardware and/or software structures that perform the limited function of computing the CRC (cyclic redundancy checksum) bits (i.e., CRC octet) from a bit stream. <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at Fig. 1, Fig. 3, 1:19-29, 4:42-53, 5:12-24, 5:30-32.	Governed by 112, para 6. No structure described, indefinite under <i>Williamson</i> . Function ('379): determine a local CRC octet based on a received bit stream Function ('958): determine a local CRC octet based on a transmitted or received bit stream Structure: Indefinite

¹ The '379, '958, '778, and '337 share a common disclosure. For brevity, this document cites only to the '379 patent.

Disputed Claim Term	Patent, Asserted Claims	Plaintiff's Proposed Construction	Defendants' Proposed Construction
"CRC bit[s] comparison module"	'379 patent, claims 11, 16 '958 patent, claims 14, 19	A CRC bits comparison module is a class of hardware and/or software structures that perform the limited function of comparing one set of CRC bits (e.g., local CRC octet) to another set of CRC bits (e.g., received CRC octet). <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at Fig. 1, Fig. 3, 1:29-32, 4:48-53, 5:32-40.	Governed by 112, para 6. No structure described, indefinite under <i>Williamson</i> . Function: compare the local CRC octet to a received CRC octet Structure: Indefinite
"CRC error [reporting] module"	'379 patent, claims 11, 16 '958 patent, claims 14, 19	A CRC error [reporting] module is a class of hardware and/or software structures that perform the limited function of identifying a CRC anomaly when one set of CRC bits (e.g., local CRC octet) is not identical to another set of CRC bits (e.g., received CRC octet). <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at Fig. 1, Fig. 3, Fig. 5, 1:32-34, 4:48-53, 5:32-40, 4:54-59, 5:44-52, 5:65 – 6:6, 8:63-67, 9:27-36.	Governed by 112, para 6. No structure described, indefinite under <i>Williamson</i> . Function: identify a CRC anomaly when the local CRC octet is not identical to the received CRC octet Structure: Indefinite
"normalization module"	'379 patent, claims 11, 16 '958 patent, claims 14, 19	A normalization module is a class of hardware and/or software structures that perform the limited function of normalizing a quantity (i.e., adjusting a quantity so that the quantity lies in a prescribed range) as specified in the claims. <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at Fig. 1, Fig. 2, Fig. 3, 4:42-53, 4:54-59, 5:44-52, 6:10-50, 7:1-41, 7:53-55, 8:63-67.	'379 claims 11, 16 (in the alternative, if preamble found limiting) Governed by 112, para 6. No structure described, indefinite under <i>Williamson</i> . Function: normalize a CRC anomaly counter based on a value for a CRC computation period (PERp) Structure: Indefinite

Disputed Claim Term	Patent, Asserted Claims	Plaintiff's Proposed Construction	Defendants' Proposed Construction
"to normalize / normalizing a CRC anomaly counter"	'379 patent, claims 11, 16 '958 patent, claims 14, 19 '778 patent, claims 1, 3 '337 patent, claims 10, 16	"to adjust / adjusting a CRC anomaly counter quantity so that the quantity lies in a prescribed range" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at Fig. 1, Fig. 2, Fig. 3, Fig. 5, 1:65 – 2:67, 4:42-66, 5:44-52, 6:10-50, 7:1-41, 7:53-55, 8:63-67.	"to increment / incrementing the CRC anomaly counter" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at 5:44-52.
"a Severely Errored Second is declared if there are more than N CRC anomalies in a second"	'778 patent claim 1, 3	"a bit stream received over a second is declared to be severely errored if the normalized amount of CRC anomalies in that second is greater than a specified number N" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at 1:40-45, 1:65 – 2:3, 4:61 – 5:2, 8:10-11, 8:44-49, 9:31-36.	Indefinite
"declare a Severely Errored Second when there are more than N CRC anomalies in a period of time"	'337 patent, claims 10, 16	"a bit stream received over a period of time is declared to be severely errored if the normalized amount of CRC anomalies over that period of time is greater than a specified number N" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at 1:40-45, 1:65 – 2:3, 4:61 – 5:2, 8:10-11, 8:44-49, 9:31-36.	Indefinite
"Severely Errored Second"	'778 patent claim 1, 3 '337 patent, claims 10, 16	Should be construed in context. (See above.)	"18 or more CRC anomalies in a 1-second interval" <u>Intrinsic Evidence:</u> Ex. B ('379 patent) at 1:40-43, 1:65-2:7, 4:66-5:2.
"N CRC anomalies"	'778 patent, claim 1, 3 '337 patent, claims 10, 16	Should be construed in context. (See above.)	Indefinite

Claim Term	Patent, Claims	Agreed Construction
preamble	'958 patent, claim 14, 19 '778 patent, claim 1, 3 '337 patent, claim 10, 16	Parties agree that the preamble is not limiting.